



# SEA.CX

OPTICAL SORTING





# Global Pioneer in Optical Sorting.

To find the right optical sorter for your business, you need a partner you can rely on. One who understands your biggest sorting challenge, allows you to put their solutions to the test and offers expert advice. You need support at every stage of the selection of the solution, installation and after-sales process. Cimbria has been helping customers succeed for more than 75 years. With a wide range of technologically advanced and user-friendly optical sorters to sort seeds, grains, food commodities and industrial products, you can feel confident you will get the right system tailored to your business.

## Much More Than Full Colour.

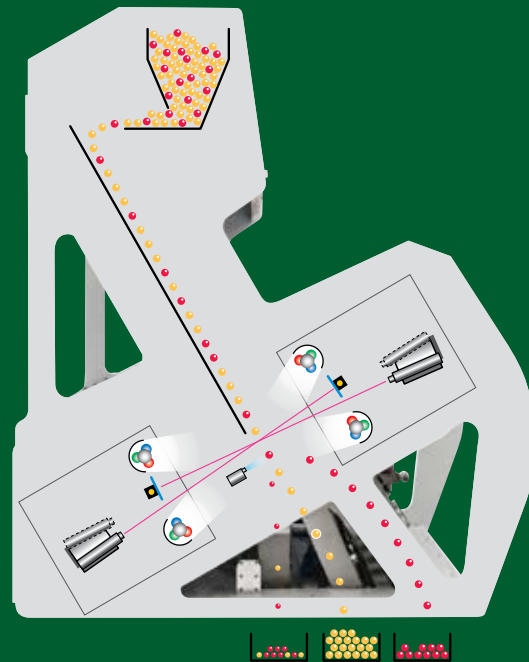
Previously known as Chromex, the SEA.CX Optical Sorter uses advanced technology to see beyond the human eye and recognize a wide range of defects. Using RGB full-colour cameras, NIR cameras to optimize the separation of foreign bodies, and InGaAs technology to separate defects that are not visible, SEA.CX helps you improve production efficiency and quality. SEA.CX provides the highest level of safety in terms of performance and reliability even in the standard version.





# Key Features.

- The in-feed system ensures ideal product upload
- From 0.5 to 7 reversible chutes to satisfy any production capacity requirement
- **Full-colour cameras.** 4096 pixels RGB full-colour cameras provide 0.06 mm resolution to differentiate colour, shade and shape. They recognize 16 million colours and perform 18.000 scans per second (18KH)
- **NIR cameras (optional).** Optimize the separation of foreign bodies from conforming products of similar colour
- **InGaAs technology (optional).** Separate defects that cannot be visually distinguished
- **UV technology** makes the SEA.CX specifically configured to separate not visible defects recognizable only in the ultraviolet spectrum
- **Exclusive led lighting.** Optimal lighting with low heat dissipation for reliable and long-lasting performance
- Rapid firing ejectors guarantee precise expulsion and highly concentrated rejects
- Self-diagnosis and calibration functionality maintains consistent performance
- Electronic boards using SMF and FBGS technology are easy to replace

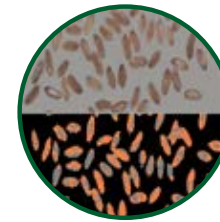


# Structure.

- Dust-proof pressurization and airtight structure
- Cameras heat reduction system to maintain the ideal temperature inside the optical box
- Tilting optical boxes simplify cleaning and maintenance
- Standard colour RAL 9003. Customized colours upon request

In automatic re-sort version, the accepted or rejected product can be conveyed to another section to undergo multiple passes of the sorting process. The accurate sorting process ensures food safety and added-value to the accepted stream. Highly concentrated rejects preserve the whole process economy.

# Settings.



## SETTING TO SEE BEYOND THE VISIBLE

The HSI imaging system compares the object to your defined thresholds to identify it as a real defect or an acceptable element. Recognizing up to 14 families of defects, the system is more effective than the human eye. The NIR, InGaAs, UV technologies make it possible to remove invisible defects such as mycotoxins, fungi as well as other contaminants like stones, wood, shells, plastic and glass.



## SHAPE AND DAMAGE AREA SETTINGS

The integrated shape-sizing function allows elements to be separated based on geometric characteristics. Size can also be controlled so you can determine if an individual piece within a product should be accepted.



SCAN THE QR  
TO SET UP  
YOUR TRIAL

## PUT US TO THE TEST

Send us your toughest sorting challenge. Cimbria's multiple testing centers are available for customizable lab trials worldwide. Let our experts recommend the best solution.



Grains



Seeds



Food



Recycling





# Quality first.

SEA.CX offers advanced sorting for food and non-food commodities and even for the most challenging applications. Besides the detection of color defects (immature, moldy, discolored, insect-damaged beans) SEA.CX can identify foreign bodies and contaminants, evaluating millions of colours and shapes by area, perimeter, eccentricity, and angularity.

SEA.CX is supplied and installed by the Cimbria's highly skilled technical staff to whom you can rely for assistance in every step of the way, with in person training, remote assistance, and annual maintenance services. Cimbria, an expert at your side.










## CERTIFICATIONS

- CE conformity certificate
- 2006/42/CE on machinery safety
- 2014/30/CE on Electromagnetic Compatibility
- Compatible with UL and CSA standards
- ATEX standards Certificate (option)

## Easy, Fast, Intuitive, Exagon™ HMI.

Simplified screens, increased visibility and improved graphics make the sorter easy for the operator to control and set dedicated programs. The same programs can be uploaded on multiple machines with a single database. Possibility to quickly create efficient programs using your password and retrieve data remotely to optimize performance. The customizable home page makes sure your machine is set for the way the user operates.

## MACHINE TECHNICAL DATA

		0,5	1	1,5	2	3	4	5	6	7	
											
No. of vibrating feeders/chutes		1	1	1.5	2	3	4	5	6	7	
No. of cameras (front+back)		2	2-4	2-4	4-8	6-12	8-16	10-20	12-24	14-28	
No. ejectors/chutes		27	54	77	108	162	216	270	324	378	
Compressed air consumption (max value at 6 bar)	l/min	150	300	450	600	900	1200	1500	1800	2100	
	m <sup>3</sup> /h	9	18	27	36	54	72	90	108	126	
Compressed air hose		Ø 1									
Power supply/ frequency		230/ 50 - 1 Ph (L + N + PE)									
Power consumption (max.value)		kVA	0,8	0,8	0,8	1,5	1,5	2,3	2,3	2,7	2,7
Power absorption (max. value)		A	3,1	3,1	3,1	6,4	6,4	9,7	9,7	11,8	11,8
Dimensions	Length	mm / inch	1031 / 40.59	1031 / 40.59	1031 / 40.59	1700 / 66.93	1700 / 66.93	2125 / 83.66	2125 / 83.66	2675 / 105.32	2675 / 105.32
	Width	mm / inch	1690 / 66.53								
	Height	mm / inch	2100 / 82.67								
Weight	kg	700	750	800	1000	1060	1250	1300	1600	1650	
	lbs	1543	1653	1764	2205	2337	2756	2866	3527	3638	



PLEASE DOWNLOAD THE DATA SHEET FOR MORE TECHNICAL INFORMATION.



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